



United States Department of the Interior

BUREAU OF LAND MANAGEMENT HOUSE RANGE RESOURCE AREA

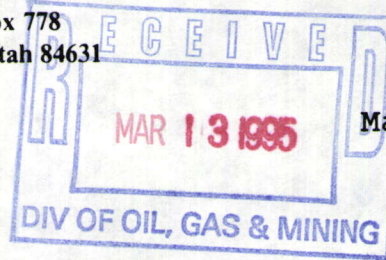
15 East 500 North
P.O. Box 778
Fillmore, Utah 84631

DOGM
MINERALS PROGRAM
FILE COPY



IN REPLY REFER TO:
(U-054)
UTU-63447

EXPRESS MAIL, NEXT DAY SERVICE
CERTIFIED MAIL
RRR No: P 309 469 683



March 10, 1995

DECISION

Mr. E. B. King	:	43 CFR 3809
Jumbo Mining Company	:	Surface Management
6305 Fern Spring Cove	:	Notice of Noncompliance
Austin, TX 78730	:	

Notice of Failure to Reclaim and Prevent Undue and Unnecessary Degradation at the Drum Mine (UMC 94374-9, 124963-74, 224617-66, 258431-50, and 260743-833).

On July 8, 1983, Western States Minerals Corporation (Western States) submitted a 43 CFR 3809 Plan of Operations (POO) for the Drum Mine, an open pit and cyanide heap leach operation, located in Millard County, Utah. The House Range Resource Area (HRRRA) approved the mine plan on August 18, 1983. Minor revisions to the mine plan were received and approved between January 30, 1984 and April 13, 1984.

On December 9, 1988, HRRRA received written notification that Jumbo Mining Company (Jumbo) recently acquired the Drum Mine and would operate it in compliance with Western States' POO. Subsequently, Jumbo amended the mine plan to include a haul road and an additional open pit (Mizpah Pit). These amendments were approved on August 9, 1989 and May 15, 1990, respectively.

The last application of sodium cyanide leachate to any of the heaps was October 1, 1990. Since then, litigation between Western States and Jumbo, and delays in permitting and bonding with the Utah Department of Environmental Quality, Division of Water Quality (DWQ) and the Utah Division of Oil Gas and Mining (DOGM), have effectively shut down mining and milling operations. Exploration by mapping, sampling, and drilling is continuing.

In the past, HRRRA has expressed concerns about operating practices at the Drum Mine. Following an inspection on November 16, 1990, correspondence was sent to Jumbo addressing the use and mandatory certification of fuel storage tanks. General housekeeping at the mine site was reviewed and Jumbo was encouraged to dispose of unnecessary scrap and trash at an approved landfill. On March 29, 1991, HRRRA received an amendment

to the POO from Jumbo proposing a new heap. Upon review by the BLM Cyanide Advisory Board, a number of comments describing deficiencies in Jumbo's proposal was sent to your company. During an inspection on July 9, 1992, potential chemical safety hazards were noted at the Drum Mine and subsequent correspondence requested that Jumbo take measures to alleviate these problems. An inspection on February 23, 1995, confirmed that satisfactory resolution had not been achieved.

The field inspection on February 23, 1995, identified several items in noncompliance with the Surface Management regulations. During our inspection, the BLM also noted and reported significant quantities of materials subject to identification and listing as hazardous waste under the 40 CFR 261 regulations. The presence of on-site hazardous waste would subject Jumbo Mining to the regulatory mandates of 40 CFR 262 which defines the standards applicable to generators of hazardous waste. This, in turn, triggers other regulatory requirements under 40 CFR parts 264, 265, and 270. Final decision on noncompliance under Resource Conservation Recovery Act (RCRA), Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and Hazardous Materials Transportation Act (HMTA) rests with the appropriate Utah Department of Environmental Quality Divisions, Department of Transportation (DOT), and Environmental Protection Agency. The items in noncompliance as observed by BLM are:

1. An estimated 157 drums of abandoned, discarded or speculatively accumulated chemical products are improperly stored, labeled, marked, packaged or disposed of on the mine site posing a potential threat to human health and the environment. This potential threat includes the possible formation and release of hydrogen cyanide gas, other flammable and poisonous gases, exothermic and corrosive reactions and further spillage and contamination of soil and ground water. The inappropriate storage, labeling, marking, packaging and disposal on the mine site is a violation of 43 CFR 3809.1-5 (c)(5) and (6), 3809.2-2(c), 3809.3-1 (a) (Enclosure 1).

In addition, as many as, 18 full drums of Sodium Cyanide are dangerously stored in a precarious open air position located at the edge of the barren pond. Previous BLM inspection compliance reports (7/9/92) document that these drums are subject to the "speculative accumulation" definition and other 40 CFR 261 criteria for classification as "hazardous waste."

2. Over 25 lead acid batteries and over 40 tires are stored or disposed of on the mine site. These are considered solid waste that must be recycled or properly disposed of off site at an approved disposal facility. Failure to do so may be in violation of 43 CFR 3809.1-5 (c)(5) and (6), 3809.2-2 and 3809.3-7.

3. Soil stains, possibly from multiple chemical product sources, suggest that spillage of chemicals may have occurred at the site. Improper storage resulting in leakage or spillage is causing unnecessary and undue degradation of Federal lands. In addition, if releases of hazardous materials in reportable quantities have occurred, then Federal, State and local agencies should have been notified of this fact. Failure to do so may be in violation of State and Federal reporting requirements and 43 CFR 3809.2-2.

4. Hundreds of open ore sample bags could potentially be defined as a hazardous waste under EPA Hazardous Waste Regulations 40 CFR 261.2, 261.3 and 262.11. If the samples are hazardous waste then they would have to be disposed of at an approved hazardous waste disposal facility, in accordance with 43 CFR 3809.2-2.

5. Two transformers appear to be of the vintage that could contain PCB's. The dielectric fluids from these transformers need to be sampled to determine if the fluids do contain PCB's greater than 50 parts per million (PPM). Transformers containing PCB's above 50 PPM must be deactivated in conformance with 43 CFR 3809.2-2. The Federal law that requires deactivation of transformers with PCB's is the Toxic Substances Control Act (TSCA).

6. Oil, diesel and gasoline product spills were observed. Several storage tanks appear to be leaking. The leakage of petroleum products from these storage tanks may be causing unnecessary and undue degradation of Federal lands and ground water. Underground storage tanks must be removed using a State Certified Tank Handler. Above ground storage tanks must be in compliance with applicable State storage tank requirements.

7. Contamination of a perched aquifer adjacent to the heap leach pads was identified in 1991 by the Utah DWQ. The DWQ determined that arsenic and cyanide exceeded maximum contamination levels (MCL) in this aquifer.

8. The assay lab on site appears to contain improperly stored, labeled, and marked chemical products. If these chemicals have outlived their usefulness for their intended purpose, then they would be classified as a hazardous waste and subject to 40 CFR 261.

9. The magazine containing explosives adjacent to the open pit must be inventoried and BLM assured that all explosive materials are within product specification and usage time frames.

The BLM has determined that the 157 drums of abandoned, discarded or speculatively accumulated chemical products (Item 1) pose an imminent threat to human health and the environment. Immediate corrective action on this imminent threat must begin within 5 days of receipt of this decision and be completed within 15 days. This immediate corrective action must include the securing of the site and an inventory, characterization, segregation and stabilization of materials in drums and other containers on-site. This response action must, at a minimum, comply with the requirements of the National Contingency Plan, the provisions of the Hazardous Waste Operations for Emergency Response and the OSHA requirement in 29 CFR 1910.120 for the protection of response personnel.

To perform the immediate corrective action, BLM has a qualified contractor available (Rinchem/Utah, Kimmel King, (801) 763-0120). In addition, the State Department of Environmental Quality also has a list of qualified contractors (Enclosed). All response actions must be conducted by qualified personnel approved by the BLM prior to initiating work, and work must be performed in accordance with all Federal, State and local requirements and regulations. Should you fail to complete this action, the BLM will complete this action at your expense and commence appropriate cost recovery proceedings.

Following completion of immediate corrective actions for item number one, you must, within 30 days, arrange to meet with the BLM and other appropriate agencies to discuss steps for the proper evaluation and mitigation of items 2-9 and other threats to human health and the environment.

Your response and immediate corrective action to this notice of noncompliance operation will be monitored on site by the BLM so we can document corrective actions that you take. Also, you must notify the BLM prior to the commencement of all actions taken to mitigate threats and correct the conditions of noncompliance.

In compliance with the conditions of approval for the Drum Mine's POO, disposal or burial of nonhazardous solid waste on-site may be allowed. Prior to taking this action, written notification shall provide the BLM with an inventory of all nonhazardous solid wastes to be disposed of on site and the location of disposal or burial. Written acknowledgement of the notification by the BLM shall document the inventory and the location of disposal or burial.

BLM has the responsibility to invoke the CERCLA response and

remediation authorities consistent with the National Oil and Hazardous Substances Pollution Contingency Plan, to address the potential imminent threat and other CERCLA and RCRA issues we have identified.

If action is not completed in a timely manner, then a record of noncompliance will be established. A record of noncompliance means that for the duration of the record of noncompliance, all mining activity in excess of casual use on BLM-administered lands will require the submission of a POO and a mandatory bond at 100 percent of BLM's estimated cost of reclamation, including appropriate administrative costs. This bond will be in addition to any bonds held by the State. Other response and/or remediation authorities may also be invoked.

The Drum Mine's POO is out-of date and all of the proposed reclamation time frames in the POO have been exceeded. A POO amendment addressing the non-operating status at the Drum Mine has never been submitted. The DWQ has rescinded their construction permit approval for all heaps. The process ponds are not permitted, but may be reusable if they are relined according to DWQ specification. New DWQ construction permits are required prior to the restarting of operations. Also, sampling of the upper berm, pregnant pond and leach run-off from the heap has identified elevated levels of total cyanide. Additional sampling will be necessary in order to ensure the site meets draft closure criteria standard of .2 mg/l weak acid dissociable (WAD) for cyanide and MCL's for metals prior to final reclamation of the site. Given these circumstances, we are requesting per regulation, that a modified POO be filed within 30 days from receipt of this decision. Reclamation as approved in the Drum Mine's 1983 POO will be required. New time frames for the reclamation of all existing heaps and other facilities must be addressed.

In accordance with 43 CFR 3809.4, you have the right of appeal to the Utah State Director. Direct correspondence to:

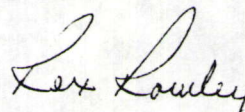
Utah State Director
Bureau of Land Management
P.O. Box 45155
Salt Lake City, Utah 84145-0155.

If you exercise this right, your appeal must be accompanied by:

1. The name and address of the appellant,
2. The name and serial numbers of any involved mining claims, and
3. A statement of reasons for the appeal and any arguments you wish to present, which would justify reversal or modification to this decision.

Your appeal must be filed in writing at this office within thirty (30) days after you receive this decision. This decision will remain in effect during the appeal unless a written request for a stay is granted.

Sincerely,



Rex Rowley
Area Manager

Enclosures:

1. 43 CFR 3809 Regulations (6 pp)
2. Utah Division of Environmental Response and Remediation
Spill Response Resource List (2 pp)

cc: **D.Wayne Hedberg**, State of Utah, Division of Oil, Gas and Mining

Mark Novak, State of Utah, Department of Environmental Quality, Division of Water Quality

Jason Knowlton, State of Utah, Division of Environmental Response and Remediation

Doug Taylor, State of Utah, Division of Solid and Hazardous Waste

Roger Foisy, State of Utah, Department of Environmental Quality, District Engineer, Central District

Jerry Regan, Millard County Planning and Zoning

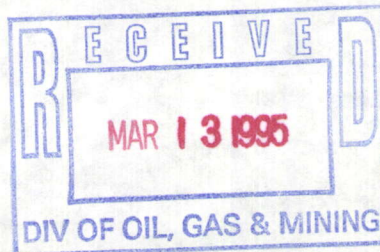
11/027/007

3809
(U-054)
UTU-063447

February 28, 1995

CERTIFIED MAIL #P 309 469 680 RRR

DAVID HARTSHORN
GEOLOGIST
JUMBO MINING CORPORATION
PO BOX 999
DELTA UT 84624



Dear Mr. Hartshorn:

Based on observations made during a site visit to the Drum Mine by Kimmel King, Ed Bush, and Bill Wagner on Thursday, February 23, 1995, we believe a potential threat to human health and the environment exists at the site. If barrels and other containers hold what is indicated on the barrel labels, contaminant releases could occur or may be occurring as a result of incompatible storage, rupture, or other disturbance. For example, barrels of sodium cyanide labeled are present in the waste storage area among other barrels marked hydrochloric acid. Drums marked sodium cyanide are precariously perched on the lined lip of the pregnant/barren pond area. Other chemical drums and containers are located around the facility, which in the opinion of BLM constitute a potential threat to human health and the environment. Extreme caution is advised until such time as container contents are verified and appropriate cleanup action is taken.

The materials must be properly identified, segregated, and disposed of as appropriate by hazardous material management trained and equipped personnel with BLM oversight. In the meantime, the most prudent course of action to be taken by personnel on the site is to maintain safe distances, preferably upwind from the materials until further action is taken by the appropriate regulatory personnel, BLM and the operator.

If you have any questions regarding this letter, please call Rody Cox at (801) 743-6811 or Bill Wagner at (801) 539-4062.

Sincerely,

Rex Rowley
Rex Rowley
Area Manager

\Cox:msc

FILE COPY

(801) 539-4200

RINCHIEM COMPANY, INC.

Utah Operations Center
1306 North 100 West
American Fork, UT 84003
Phone (801) 763-0120

FAX COVER SHEET

NAME: TERRY Mc PARLAND DATE: 3/6/95

ORGANIZATION: BLM MINERALS

ADDITIONAL MESSAGE: HERE IS THE ANALYTIC ON JUBBO/DRUM:
THE MCL FOR CYANIDE IS .2 MG/L (THE UPPER BERM IS 16;
PREGNANT PORE .38; LEACH RUN-OFF IS .38). TPH ON THE
HST "DIESEL" IS > 47,000 PPM. THE LAB GOOFED-UP ON THE
CYANIDE ANALYTIC ON THE TWO MONITORING WELLS.

FROM: ~~~~~ KIMMEL KING

TOTAL NUMBER OF PAGES, INCLUDING THIS PAGE: (8)

CALL ADDRESSEE UPON RECEIPT: YES _____ NO _____

IF YOU DO NOT RECEIVE ALL PAGES OR HAVE ANY PROBLEMS
WITH THE TRANSMISSION PLEASE CALL (801) 763-0120 AND
REQUEST ASSISTANCE FROM THE SENDER.

cc: BILL VAKMEN (PREVIOUSLY FAX'D)
ED BUSH (PREVIOUSLY FAX'D)

WE DO IT WELL

→ THE PEAK
CYANIDE WELL
LEVEL WAS
.6 mg/l on
well #MH-8
CIRCA FEB. 1990
BECAUSE WE CARE



AMERICAN
WEST
ANALYTICAL
LABORATORIES

INORGANIC ANALYSIS REPORT

Client: Rinchem
Date Received: February 21, 1995
Lab Sample ID Number: 21624-06
Field Sample ID: BLM-Jumbo Mine/4B1 & 4B2 Upper Berm

Contact: Kimmel King
Received By: Elona Hayward

Analytical Results

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Fax (801) 263-8687

	Method Used:	Detection Limit: mg/L	Amount Detected: mg/L
TCLP METALS	1311		
Arsenic	7060	0.5	<0.5
Barium	6010	0.05	10' 0.39
Cadmium	6010	0.03	<0.03
Chromium	6010	0.05	<0.05
Lead	6010	0.1	<0.1
Mercury	7471	0.05	<0.05
Selenium	7740	0.1	<0.1
Silver	6010	0.1	<0.1

OTHER CHEMISTRIES

Cyanide	335.3	0.005
---------	-------	-------

16.

Released by: PLT
Laboratory Supervisor

Report Date 3/2/95

1 of 1

THIS REPORT IS PROVIDED FOR THE EXCLUSIVE USE OF THE ADDRESSEE. PRIVILEGES OF SUBSEQUENT USE OF THE NAME OF THIS COMPANY OR ANY MEMBER OF ITS STAFF, OR REPRODUCTION OF THIS REPORT IN CONNECTION WITH THE ADVERTISEMENT, PROMOTION OR SALE OF ANY PRODUCT OR PROCESS OR IN CONNECTION WITH THE RE-PUBLICATION OF THIS REPORT FOR ANY PURPOSE THAN FOR THE ADDRESSEE WILL BE GRANTED ONLY ON CONTRACT. THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND ACCORDING TO THE RULES OF THE TRADE AND OF SCIENCE.



AMERICAN
WEST
ANALYTICAL
LABORATORIES

INORGANIC ANALYSIS REPORT

Client: Rinchem
Date Received: February 21, 1995
Lab Sample ID Number: 21624-01
Field Sample ID: BLM-Jumbo Mine/001-Pregnant Pond

Contact: Kimmel King
Received By: Elona Hayward

Analytical Results

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Fax (801) 263-8687

	<u>Method Used:</u>	<u>Detection Limit:</u> mg/L	<u>Amount Detected:</u> mg/L
TCLP METALS	1311		
Arsenic	7060	0.5	<0.5
Barium	6010	0.05	<0.05
Cadmium	6010	0.03	<0.03
Chromium	6010	0.05	<0.05
Lead	6010	0.1	<0.1
Mercury	7471	0.05	<0.05
Selenium	7740	0.1	<0.1
Silver	6010	0.1	<0.1

OTHER CHEMISTRIES

<u>Cyanide</u>	335.3	0.005	0.38
----------------	-------	-------	-------------

Released by: Pelt

Laboratory Supervisor

Report Date 3/2/95

1 of 1

THIS REPORT IS PROVIDED FOR THE EXCLUSIVE USE OF THE ADDRESSEE. PRIVILEGES OF SUBSEQUENT USE OF THE NAME OF THIS COMPANY OR ANY MEMBER OF ITS STAFF, OR REPRODUCTION OF THIS REPORT IN CONNECTION WITH THE ADVERTISEMENT, PROMOTION OR SALE OF ANY PRODUCT OR PROCESS OR IN CONNECTION WITH THE RE-PUBLICATION OF THIS REPORT FOR ANY PURPOSE THAN FOR THE ADDRESSEE WILL BE GRANTED ONLY ON CONTRACT. THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND ACCORDING TO THE RULES OF THE TRADE AND OF SCIENCE.



AMERICAN
WEST
ANALYTICAL
LABORATORIES

INORGANIC ANALYSIS REPORT

Client: Rinchem

Date Received: February 21, 1995

Lab Sample ID Number: 21624-03

Field Sample ID: BLM-Jumbo Mine/003-Leach Run-Off

Contact: Kimmel King

Received By: Elona Hayward

Analytical Results

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Fax (801) 263-8687

	Method Used:	Detection Limit: mg/L	Amount Detected: mg/L
TCLP METALS	1311		
Arsenic	7060	0.5	<0.5
Barium	6010	0.05	<0.05
Cadmium	6010	0.03	<0.03
Chromium	6010	0.05	<0.05
Lead	6010	0.1	<0.1
Mercury	7471	0.05	<0.05
Selenium	7740	0.1	<0.1
Silver	6010	0.1	<0.1

OTHER CHEMISTRIES

<u>Cyanide</u>	335.3	0.005	0.33
----------------	-------	-------	------

Released by:

Paul
Laboratory Supervisor

Report Date 3/2/95

1 of 1

THIS REPORT IS PROVIDED FOR THE EXCLUSIVE USE OF THE ADDRESSEE. PRIVILEGES OF SUBSEQUENT USE OF THE NAME OF THIS COMPANY OR ANY MEMBER OF ITS STAFF, OR REPRODUCTION OF THIS REPORT IN CONNECTION WITH THE ADVERTISEMENT, PROMOTION OR SALE OF ANY PRODUCT OR PROCESS OR IN CONNECTION WITH THE RE-PUBLICATION OF THIS REPORT FOR ANY PURPOSE THAN FOR THE ADDRESSEE WILL BE GRANTED ONLY ON CONTRACT. THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND ACCORDING TO THE RULES OF THE TRADE AND OF SCIENCE.



AMERICAN
WEST
ANALYTICAL
LABORATORIES

INORGANIC ANALYSIS REPORT

Client: Rinchem
Date Received: February 21, 1995
Lab Sample ID Number: 21624-02
Field Sample ID: BLM-Jumbo Mine/002-Barren Pond

Contact: Kimmel King
Received By: Elona Hayward

Analytical Results

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Fax (801) 263-8687

	<u>Method Used:</u>	<u>Detection Limit:</u> mg/L	<u>Amount Detected:</u> mg/L
TCLP METALS	1311		
Arsenic	7060	0.5	<0.5
Barium	6010	0.05	<0.05
Cadmium	6010	0.03	<0.03
Chromium	6010	0.05	<0.05
Lead	6010	0.1	<0.1
Mercury	7471	0.05	<0.05
Selenium	7740	0.1	<0.1
Silver	6010	0.1	<0.1

OTHER CHEMISTRIES

<u>Cyanide</u>	335.3	0.005	<u>0.084</u>
----------------	-------	-------	--------------

Released by: PLH
Laboratory Supervisor

Report Date 3/2/95

1 of 1

THIS REPORT IS PROVIDED FOR THE EXCLUSIVE USE OF THE ADDRESSEE. PRIVILEGES OF SUBSEQUENT USE OF THE NAME OF THIS COMPANY OR ANY MEMBER OF ITS STAFF, OR REPRODUCTION OF THIS REPORT IN CONNECTION WITH THE ADVERTISEMENT, PROMOTION OR SALE OF ANY PRODUCT OR PROCESS OR IN CONNECTION WITH THE RE-PUBLICATION OF THIS REPORT FOR ANY PURPOSE THAN FOR THE ADDRESSEE WILL BE GRANTED ONLY ON CONTRACT. THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND ACCORDING TO THE RULES OF THE TRADE AND OF SCIENCE.



AMERICAN
WEST
ANALYTICAL
LABORATORIES

ORGANIC ANALYSIS REPORT

Client: Rinchem
Date Sampled: February 17, 1995
Date Received: February 21, 1995
Set Description: Five Waste and Four Solid Samples

Set Identification #: 21624
Contact: Kimmel King
Received By: Elona Hayward

Analysis Requested:
Total Petroleum Hydrocarbons

Method Ref. Number:
EPA SW-846 #8015 (modified)
(Extraction - GC/FID)

Date Extracted:
February 21, 1995

463 West 3600 South
Salt Lake City, Utah
84115

Lab Sample ID. Number:
21624-08

Field Sample ID. Number:
BLM-Jumbo Mine/UST Diesel

Date Analyzed:
February 22, 1995

Analytical Results

TPH

Units = mg/kg (ppm) †

(801) 263-8686
Fax (801) 263-8687

Compound:

Detection
Limit:

Amount
Detected:

Total Petroleum Hydrocarbons

2.0


47,000. *

<Value = None detected above the specified method detection limit, or a value that reflects a reasonable limit due to interferences.

† All compounds are reported on a dry weight basis.

* Evidence of higher weight compounds is present, but a quantitative representation of that amount is not possible under the constraints imposed by the methodology used for the analysis.

Released by:


Laboratory Supervisor

Report Date 3/2/95

1 of 1

THIS REPORT IS PROVIDED FOR THE EXCLUSIVE USE OF THE ADDRESSEE. PRIVILEGES OF SUBSEQUENT USE OF THE NAME OF THIS COMPANY OR ANY MEMBER OF ITS STAFF, OR REPRODUCTION OF THIS REPORT IN CONNECTION WITH THE ADVERTISEMENT, PROMOTION OR SALE OF ANY PRODUCT OR PROCESS OR IN CONNECTION WITH THE RE-PUBLICATION OF THIS REPORT FOR ANY PURPOSE THAN FOR THE ADDRESSEE WILL BE GRANTED ONLY ON CONTRACT. THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND ACCORDING TO THE RULES OF THE TRADE AND OF SCIENCE.



AMERICAN
WEST
ANALYTICAL
LABORATORIES

INORGANIC ANALYSIS REPORT

Client: Rinchem

Date Received: February 21, 1995

Lab Sample ID Number: 21624-05

Field Sample ID: BLM-Jumbo Mine/M-7 & M-8 Monitor Well

Contact: Kimmel King

Received By: Elona Hayward

Analytical Results

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Fax (801) 263-8687

	Method Used:	Detection Limit: mg/L	Amount Detected: mg/L
TCLP METALS	1311		
Arsenic	7060	0.5	<0.5
Barium	6010	0.05	0.69
Cadmium	6010	0.03	<0.03
Chromium	6010	0.05	<0.05
Lead	6010	0.1	<0.1
Mercury	7471	0.05	<0.05
Selenium	7740	0.1	<0.1
Silver	6010	0.1	<0.1

OTHER CHEMISTRIES

Cyanide	335.3	0.05	<0.05 *
---------	-------	------	---------

* The detection limit was raised due to the sample matrix.

Released by:

PLH
Laboratory Supervisor

Report Date 3/2/95

1 of 1

THIS REPORT IS PROVIDED FOR THE EXCLUSIVE USE OF THE ADDRESSEE. PRIVILEGES OF SUBSEQUENT USE OF THE NAME OF THIS COMPANY OR ANY MEMBER OF ITS STAFF, OR REPRODUCTION OF THIS REPORT IN CONNECTION WITH THE ADVERTISEMENT, PROMOTION OR SALE OF ANY PRODUCT OR PROCESS OR IN CONNECTION WITH THE RE-PUBLICATION OF THIS REPORT FOR ANY PURPOSE THAN FOR THE ADDRESSEE WILL BE GRANTED ONLY ON CONTRACT. THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND



AMERICAN
WEST
ANALYTICAL
LABORATORIES

INORGANIC ANALYSIS REPORT

Client: Rinchem

Date Received: February 21, 1995

Lab Sample ID Number: 21624-04

Field Sample ID: BLM-Jumbo Mine/M-24A & B Monitor Well

Contact: Kimmel King

Received By: Elona Hayward

Analytical Results

		<u>Method Used:</u>	<u>Detection Limit: mg/L</u>	<u>Amount Detected: mg/L</u>
463 West 3600 South Salt Lake City, Utah 84115 (801) 263-8686 Fax (801) 263-8687	TCLP METALS	1311		
	Arsenic	7060	0.5	<0.5
	Barium	6010	0.05	0.06
	Cadmium	6010	0.03	<0.03
	Chromium	6010	0.05	<0.05
	Lead	6010	0.1	<0.1
	Mercury	7471	0.05	<0.05
	Selenium	7740	0.1	<0.1
	Silver	6010	0.1	<0.1

OTHER CHEMISTRIES

Cyanide	335.3	0.005	*
---------	-------	-------	---

* The sample was incorrectly preserved by American West Analytical Laboratories.

Released by: PLC

Laboratory Supervisor

Report Date 3/2/95

1 of 1

THIS REPORT IS PROVIDED FOR THE EXCLUSIVE USE OF THE ADDRESSEE. PRIVILEGES OF SUBSEQUENT USE OF THE NAME OF THIS COMPANY OR ANY MEMBER OF ITS STAFF, OR REPRODUCTION OF THIS REPORT IN CONNECTION WITH THE ADVERTISEMENT, PROMOTION OR SALE OF ANY PRODUCT OR PROCESS OR IN CONNECTION WITH THE RE-PUBLICATION OF THIS REPORT FOR ANY PURPOSE THAN FOR THE ADDRESSEE WILL BE GRANTED ONLY ON CONTRACT. THIS COMPANY ACCEPTS NO RESPONSIBILITY EXCEPT FOR THE DUE PERFORMANCE OF INSPECTION AND/OR ANALYSIS IN GOOD FAITH AND